



The Pfeifer Lab

HPLC Refresher Session

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Outline

- Nomenclature
- Adding/removing modules
- How to efficiently save your data
- General maintenance
- Things to remember
- Procedure for changing columns



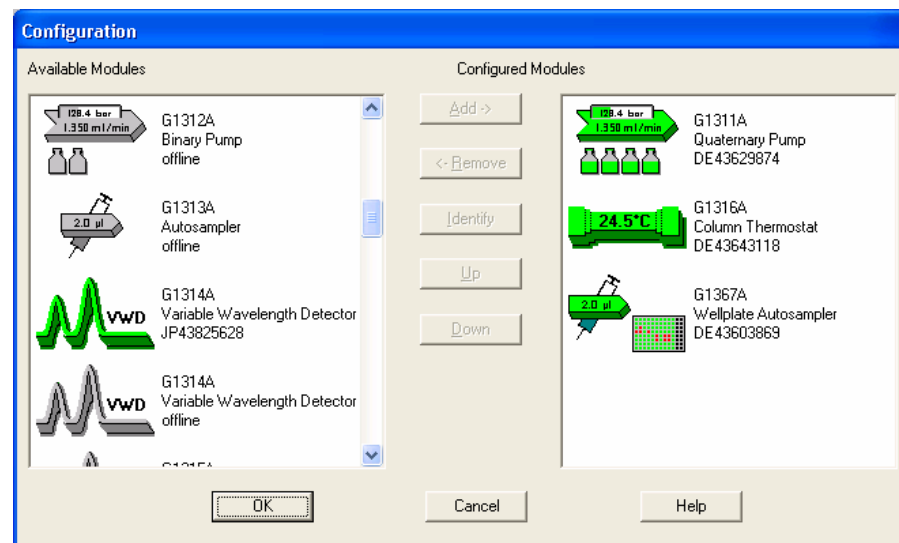
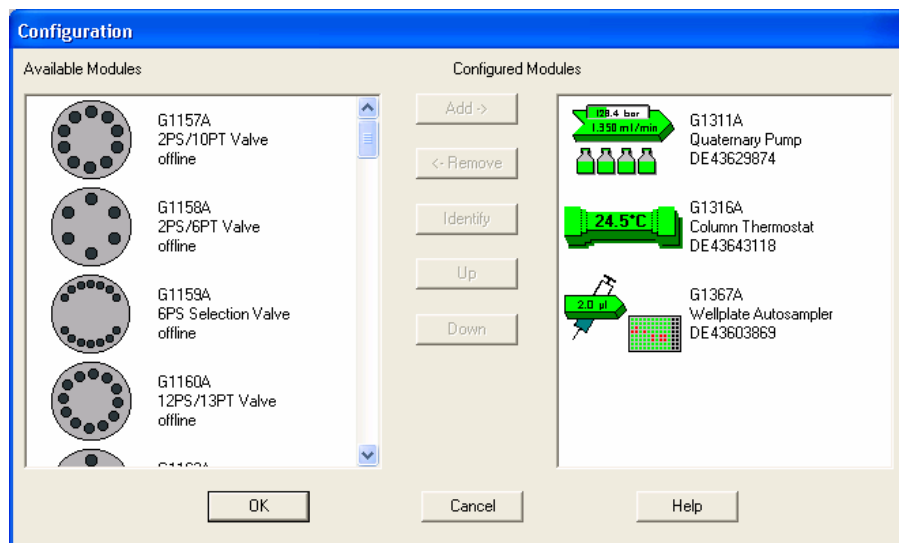
Nomenclature

- *Chromatograph* – the instrument itself
- *Chromatogram* – the graphical representation of detector data
- *Stationary phase* – the resin in the column
- *Mobile phase* – the solvents
- *Method* – instrument settings (column temperature, solvent flow-rates, etc.)
- *Sequence* – sample settings (names, locations, etc.)
- *Batch* – the entire data set from a finished sequence
- *Module* – isolated instrument components in the method/run control
- “*Plumbing*” – tubing configuration



Adding/Removing Modules

- Particularly for using the UV detector
- “Instrument” → “Configure 1100 Access”





How to efficiently save your data

- At the beginning of your run...
 - “RunControl” → “Sample Info”
 - Change “Operator Name”, “Prefix”, and “Subdirectory”
 - Data will be saved in C:\Chem32\1\DATA\sub directory\

Sample Info: Instrument 1

Operator Name:

Data File

☒ Prefix/Counter ☐ Manual

Prefix: Counter:

Subdirectory:

Path: C:\Chem32\1\DATA\

Sample Parameters

Location: (blank run if no entry)

Sample Name: Plate ID:

Sample Amount: Multiplier:

ISTD Amount: Dilution:

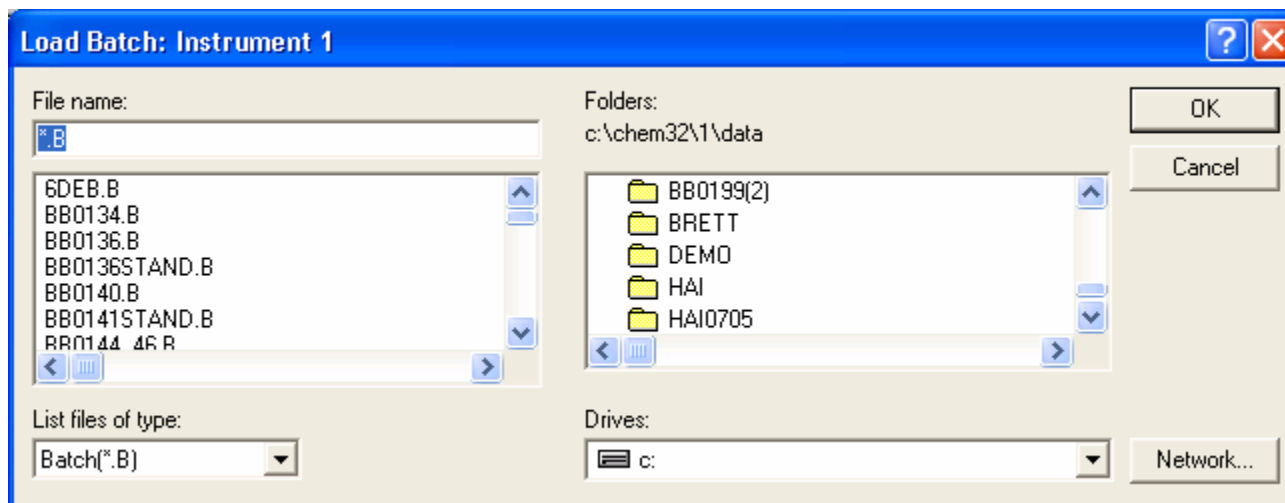
Comment:

Run Method OK Cancel Help



How to efficiently save your data

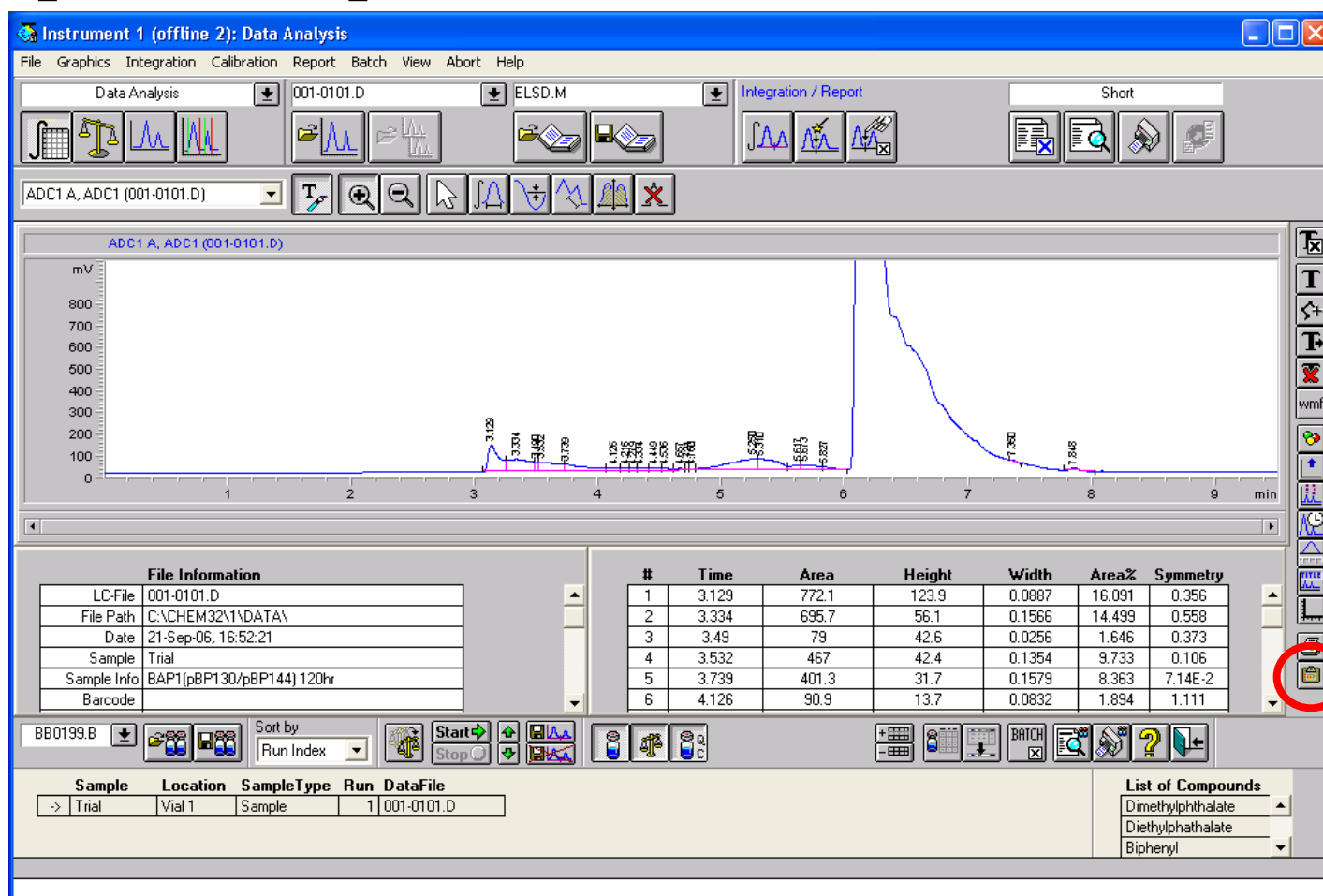
- To open data after running a method:
 - Open “Instrument 1 Offline”
 - “Data Analysis” tab should be open
 - “File” → “Load” → “Batch”





How to export chromatograms

- Export to clipboard



9.25.06



General Maintenance

- Before you start any run:
 - Wash your column with all solvents
 - Check for leaks in plumbing
 - Check volume of solvent bottles
 - Check that your sample sequence positions checks with their physical positions
 - Dispose of any leftover waste
 - If using N₂ gas, check pressure in cylinder



General Maintenance

- After you finish a run:
 - Leave the instrument as you found it
 - Empty all waste
 - If using N₂ gas, close regulator valve
 - Close the ChemStation32 software
 - This will turn off all lamps, pumps, etc.
 - Remove your samples from the autosampler



Things to Remember

- If the N₂ gas cylinder pressure is getting low, tell Brett or Saba to order another one
 - We use ultra-high purity, cylinder size 300 (UHP300) nitrogen gas from AirGas
- ALWAYS sign the log book BEFORE use
- NEVER turn off the instrument
- If you ever have any questions, call my cell-phone (reasonable times, please), or shoot me an e-mail (brett.boghigian@tufts.edu)
- Don't turn off "Remote Desktop" – I need to be able to access the instrument remotely



Procedure for Changing Columns

- Remove any columns that you are not going to use
- Use a union to join two tubes
- Wash with all new solvents
- Remove union
- Add new column(s)
- Wash again with all new solvents



Questions?

Thank You.